Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A lithography method for forming a plurality of patterns in a photoresist layer on a substrate, the method comprising the following steps:

providing a phase shift mask (PSM)[[,]] comprising a plurality of transparent main features, a plurality of first phase shift transparent regions, and a plurality of second phase shift transparent regions ~~being included on the phase shift mask~~, each of the transparent main features being surrounded by the first phase shift transparent regions and the second phase shift transparent regions in a way that the first phase shift transparent regions and the second phase shift transparent regions are interlaced contiguously along a periphery of one of the transparent main features, any two contiguous first phase shift transparent region and second phase shift transparent region share a common side with one end located at or on the periphery of the transparent main features, and both of the any two contiguous first phase shift transparent region and second phase shift transparent region each have another side adjacent to the common side and located at or on the periphery of the one of the transparent main features, ~~boundaries between the first phase shift transparent regions and the second phase shift transparent regions each having one end at an edge of each of the transparent main features~~, and each of the first phase shift transparent regions having a phase shift relative to each of the second phase shift transparent regions; and

performing an exposure process to irradiate the photoresist layer through the phase shift mask with light so that the patterns corresponding to the transparent main features are formed in the photoresist layer.

Claim 2 (original): The method of claim 1 wherein the substrate comprises a

semiconductor wafer, a glass substrate, a polymer substrate, or a quartz substrate.

Claim 3 (original): The method of claim 1 wherein the photoresist layer is a positive photoresist layer.

Claim 4 (original): The method of claim 3 wherein the pattern comprises a contact hole pattern, a trench pattern, a memory cell pattern of a memory array, or a logic cell pattern of a logic circuit.

Claim 5 (original): The method of claim 1 wherein the photoresist layer is a negative photoresist layer.

Claim 6 (original): The method of claim 5 wherein the pattern comprises a metal line pattern or an island pattern.

Claim 7 (original): The method of claim 1 wherein the phase shift mask is a selective chromeless phase shift mask.

Claim 8 (original): The method of claim 7 wherein the first phase shift transparent region has a phase shift of 180 degrees relative to the second phase shift transparent region, and the transparent main feature has a phase shift of 0 degrees relative to the first phase shift transparent region.

Claim 9 (original): The method of claim 7 wherein the first phase shift transparent region has a phase shift of 180 degrees relative to the second phase shift transparent region, and the transparent main feature has a phase shift of 0 degrees relative to the second phase shift transparent region.

Claim 10 (original): The method of claim 7 wherein the phase shift mask comprises at least one opaque region not connected with the main features.

Claim 11 (original): The method of claim 10 wherein the phase shift mask

comprises at least one opaque region connected with the main features.

Claim 12 (original): The method of claim 11 wherein an area of the opaque region not connected with the main features is larger than an area of the opaque region connected with the main features.

Claim 13 (currently amended): A lithography method for forming a plurality of patterns in a photoresist layer on a substrate, the method comprising the following steps:

providing a phase shift mask (PSM)[[,]] comprising a plurality of transparent main features, a plurality of first phase shift transparent regions, a plurality of second phase shift transparent regions having a phase shift relative to the first phase shift transparent regions, and at least one first opaque region ~~being included on the phase shift mask~~, each of the transparent main features being surrounded by the first phase shift transparent regions and the second phase shift transparent regions in a way that the first phase shift transparent regions and the second phase shift transparent regions are interlaced contiguously along a periphery of one of the transparent main feature, any two contiguous first phase shift transparent region and second phase shift transparent region share a common side with one end located at or on the periphery of the transparent main features, and both of the any two contiguous first phase shift transparent region and second phase shift transparent region each have another side adjacent to the common side and located at or on the periphery of the one of the transparent main features, ~~boundaries between the first phase shift transparent regions and the second phase shift transparent regions each having one end at an edge of each of the transparent main features~~, and the first opaque region being not connected with the main features; and

performing an exposure process to irradiate the photoresist layer through the phase shift mask with light so that the patterns corresponding to the transparent main features are formed in the photoresist layer.

Claim 14 (original): The method of claim 13 wherein the substrate comprises a

semiconductor wafer, a glass substrate, a polymer substrate, or a quartz substrate.

Claim 15 (original): The method of claim 13 wherein the pattern comprises a contact hole pattern, a trench pattern, a memory cell pattern of a memory array, a logic cell pattern of a logic circuit, a metal line pattern or an island pattern.

Claim 16 (original): The method of claim 13 wherein the phase shift mask is a selective chromeless phase shift mask.

Claim 17 (original): The method of claim 16 wherein the first phase shift transparent region has a phase shift of 180 degrees relative to the second phase shift transparent region, and the main feature has a phase shift of 0 degrees relative to the first phase shift transparent region.

Claim 18 (original): The method of claim 16 wherein the first phase shift transparent region has a phase shift of 180 degrees relative to the second phase shift transparent region, and the main feature has a phase shift of 0 degrees relative to the second phase shift transparent region.

Claim 19 (original): The method of claim 13 wherein the phase shift mask comprises at least one second opaque region connected with the main features.

Claim 20 (original): The method of claim 19 wherein an area of the first opaque region is larger than an area of the second opaque region.